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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O Box 272400
Fort Collins, CO 80527-2400

EXAMINER

BELL, MELTIN

ART UNIT	PAPER NUMBER
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2129

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/854,084

Applicant(s)

LIU ET AL.

Examiner

Meltin Bell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This action is responsive to application **09/854,084** filed 05/10/2001 as well as the Specification Corrections and Amendment filed 3/4/05. Claims 1-24 filed by the applicant have been entered and examined. An action on the merits of claims 1-24 appears below.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-24 stand rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The language of the claims (e.g. "training set", "existent database of information", "attributes", "behavioral model", "business metric space", "optimized strategy") raise a question as to whether the claims are directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application ***producing a concrete, useful, and tangible result*** to form the basis of statutory subject matter under 35 U.S.C. 101. For example, if claim 1 required performance of a result outside of a computer, it will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.

Claim Rejections - 35 USC § 103

To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

Applicants' arguments have been fully considered, but are moot in view of new grounds of rejection. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Office presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Office to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 1, 3-9, 11-17 and 19-24 are rejected under 35 U.S.C. 103(a) as being obvious over *Bertrand et al* USPN 6,085,184 "System, method and article of manufacture for a dynamic toolbar in a tutorial system" (July 4, 2000) in view of *Cook et*

a/ USPN 5,727,950 "Agent based instruction system and method" (March 17, 1998) in view of *Oten et al* "A new structure-preserving dimensionality reduction approach and OI-net implementation" (4-9 May 1998) and in further view of *Hutchison* USPN 6,038,556 "Adaptive autonomous agent with verbal learning" (Mar. 12, 2000).

Regarding claim 1:

Bertrand et al teaches,

- a) acquiring and storing (column 80, lines 41-45) a set (column 21, lines 10-27), said set an existent database of information (Abstract), wherein said information are attributes of said subject (column 62, lines 38-46), wherein said set is to provide a base of data for said method
- b) calculating (column 11, lines 25-39) and storing (Fig. 2, items 230, 234, and 270) a best behavioral (column 25, lines 44-50) model (column 26, lines 51-59) for predicting (column 28, lines 8-22) said outcome (column 11, lines 49-67), provided an action is applied to said subject
- c) mapping (column 43, lines 12-24) of a set to said best behavioral model within a business (column 12, lines 1-16) metric (column 91, lines 17-43) space (column 5, lines 53-65; column 49, lines 34-40), wherein said mapping is subsequently stored
- d) a sample (column 91, lines 38-43) mapped (column 81, lines 42-50) to said best behavioral model, said sample for reducing computational requirements (column 19, lines 36-44) when determining an optimized strategy (column 12, lines 17-22)
- e) determining and storing said optimized strategy (column 68, lines 63-67; column 689, lines 1-8) for said sample, said optimized strategy for providing an optimal action

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(column 12, lines 17-22) relative to said subject for said objective of said outcome

(column 11, lines 49-67)

However, *Bertrand et al* doesn't explicitly teach a) acquiring and storing a training set, said training set an existent database of information, wherein said information are attributes of said subject, wherein said training set is to provide a base of data for said method or d) selecting and storing a random sub-sample of said training set while *Oten et al* teaches,

- a) acquiring and storing a training set, said training set an existent database of information, wherein said information are attributes of said subject, wherein said training set is to provide a base of data for said method (Abstract)

Cook et al teaches,

- d) selecting and storing a random sub-sample of said training set (column 61, lines 11-44)

Hutchison teaches,

- a) acquiring and storing (Detailed Description text, paragraph 68, "If the prompt ... most recent saved state") a training set, said training set an existent database of information (Brief Summary text, paragraph 6, "ANNs are systems ... to general users")

Motivation – The portions of the claimed method would have been a highly desirable feature in this art for prefetching or caching software components to reduce start up time (*Cook et al*, column 20, lines 59-67), computational complexity and memory space (*Oten et al*, page 691, right column, paragraph 1) as well as for continuously learning how to behave in an environment which may be physical or electronic (*Hutchison*,

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Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Bertrand et al* as taught by *Cook et al*, *Oten et al* and *Hutchison* for the purpose of reducing start up time, computational complexity and memory space as well as for continuously learning how to behave in an environment which may be physical or electronic.

Regarding claim 3:

The rejection of claim 3 is the same as that for claim 1 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 4:

The rejection of claim 4 is the same as that for claim 1 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 5:

The rejection of claim 1 is incorporated. Claim 5's further limitations are taught in *Cook et al*:

- said subject of said training set said mapped is a separate point in said business metric space (column 15, lines 3-11)

Regarding claim 6:

The rejection of claim 6 is similar to that for claim 1 as recited above since the stated limitations of the claim are set forth in the references. Claim 6's limitations difference is taught in *Oten et al*:

- utilizing linear programming to calculate said optimal action, wherein said optimal action is associated with the largest number of subjects (page 691, section II, paragraph 1)

Regarding claim 7:

The rejection of claim 7 is similar to that for claim 1 as recited above since the stated limitations of the claim are set forth in the references. Claim 7's limitations difference is taught in *Cook et al.*:

- said optimized strategy provides a logical (column 7, lines 1-12) division (column 29, lines 15-30; column 35, lines 42-57) for classification (column 33, lines 31-48) of said subject, so as to determine said optimal action of said objective of an outcome, relative to said subject (column 63, lines 8-25)

Regarding claim 8:

The rejection of claim 8 is similar to that for claim 1 as recited above since the stated limitations of the claim are set forth in the references. Claim 2's limitations difference is taught in *Cook et al.*:

- a new subject that is not from said training set (column 4, lines 5-33; column 10, lines 43-58; column 11, lines 43-55; column 49, lines 42-52), is mapped to said best behavioral model and said stored optimized strategy, such that said new subject is included in said classification of said logical division, so as to provide an optimal action for said objective of said outcome, relative to said new subject

Regarding claim 9:

Bertrand et al teaches,

- a bus (column 5, lines 2-21)
- a memory unit coupled to said bus (Fig. 1, items 114, 116)
- at least one processor coupled to said bus, said at least one processor for executing a method for action selection based upon an objective of an outcome relative to a subject (Fig. 1, item 110)
- a) acquiring and storing (column 80, lines 41-45) a set (column 21, lines 10-27), said set an existing database of information (Abstract), said information are attributes of said subject (column 62, lines 38-46), wherein said set is to provide a base of data for said method
- b) calculating (column 11, lines 25-39) and storing (Fig. 2, items 230, 234, and 270) a best behavioral (column 25, lines 44-50) model (column 26, lines 51-59) for predicting (column 28, lines 8-22) said outcome (column 11, lines 49-67), provided an action is applied to said subject
- c) mapping (column 43, lines 12-24) of a set to said best behavioral model within a business (column 12, lines 1-16) metric (column 91, lines 17-43) space (column 5, lines 53-65; column 49, lines 34-40), wherein said mapping is subsequently stored
- d) a sample (column 91, lines 38-43) mapped (column 81, lines 42-50) to said best behavioral model, said sample for reducing computational requirements (column 19, lines 36-44) when determining an optimized strategy (column 12, lines 17-22)

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- e) determining and storing said optimized strategy (column 68, lines 63-67; column 689, lines 1-8) for said sample, said optimized strategy for providing an optimal action (column 12, lines 17-22) relative to said subject for said objective of said outcome (column 11, lines 49-67)

However, *Bertrand et al* doesn't explicitly teach a) acquiring and storing a training set, said training set an existing database of information, said information are attributes of said subject, wherein said training set is to provide a base of data for said method or d) selecting and storing a random sub-sample of said training set while *Oten et al* teaches, - a) acquiring and storing a training set, said training set an existing database of information, said information are attributes of said subject, wherein said training set is to provide a base of data for said method (Abstract)

Cook et al teaches,

- d) selecting and storing a random sub-sample of said training set (column 61, lines 11-44)

Motivation – The portions of the claimed system would have been a highly desirable feature in this art for prefetching or caching software components to reduce start up time (*Cook et al*, column 20, lines 59-67), computational complexity and memory space (*Oten et al*, page 691, right column, paragraph 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Bertrand et al* as taught by *Cook et al* and *Oten et al* for the purpose of reducing start up time, computational complexity and memory space.

Regarding claim 11:

The rejection of claim 11 is the same as that for claims 9 and 3 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 12:

The rejection of claim 12 is the same as that for claims 9 and 4 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 13:

The rejection of claim 13 is the same as that for claims 9 and 5 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 14:

The rejection of claim 14 is the same as that for claims 9 and 6 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 15:

The rejection of claim 15 is the same as that for claims 9 and 7 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 16:

The rejection of claim 16 is the same as that for claims 9 and 8 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 17:

Bertrand et al teaches,

- a) acquiring and storing (column 80, lines 41-45) a set (column 21, lines 10-27), said set an existent database of information (Abstract), wherein said information are

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attributes of said subject (column 62, lines 38-46), wherein said set is to provide a base of data for said method

- b) calculating (column 11, lines 25-39) and storing (Fig. 2, items 230, 234, and 270) a best behavioral (column 25, lines 44-50) model (column 26, lines 51-59) for predicting (column 28, lines 8-22) said outcome (column 11, lines 49-67), provided an action is applied to said subject
- c) mapping (column 43, lines 12-24) of a set to said best behavioral model within a business (column 12, lines 1-16) metric (column 91, lines 17-43) space (column 5, lines 53-65; column 49, lines 34-40), wherein said mapping is subsequently stored
- d) a sample (column 91, lines 38-43) mapped (column 81, lines 42-50) to said best behavioral model, said sample utilized for reducing computational requirements (column 19, lines 36-44) when determining an optimized strategy (column 12, lines 17-22)
- e) determining and storing said optimized strategy (column 68, lines 63-67; column 689, lines 1-8) for said sample, said optimized strategy for providing an optimal action (column 12, lines 17-22) relative to said subject for said objective of said outcome (column 11, lines 49-67)

However, *Bertrand et al* doesn't explicitly teach a) acquiring and storing a training set, said training set an existent database of information, wherein said information are attributes of said subject, wherein said training set is to provide a base of data for said method or d) selecting and storing a random sub-sample of said training set while *Oten et al* teaches,

- a) acquiring and storing a training set, said training set an existent database of information, wherein said information are attributes of said subject, wherein said training set is to provide a base of data for said method (Abstract)

Cook et al teaches,

- d) selecting and storing a random sub-sample of said training set (column 61, lines 11-44)

Motivation – The portions of the claimed method would have been a highly desirable feature in this art for prefetching or caching software components to reduce start up time (*Cook et al*, column 20, lines 59-67), computational complexity and memory space (*Oten et al*, page 691, right column, paragraph 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Bertrand et al* as taught by *Cook et al* and *Oten et al* for the purpose of reducing start up time, computational complexity and memory space.

Regarding claim 19:

The rejection of claim 19 is the same as that for claims 17, 11 and 3 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 20:

The rejection of claim 20 is the same as that for claims 17, 12 and 4 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 21:

The rejection of claim 21 is the same as that for claims 17, 13 and 5 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 22:

The rejection of claim 22 is the same as that for claims 17, 14 and 6 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 23:

The rejection of claim 23 is the same as that for claims 17, 15 and 7 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 24:

The rejection of claim 16 is the same as that for claims 17, 16 and 8 as recited above since the stated limitations of the claim are set forth in the references.

Claims 2, 10 and 18 are rejected under 35 U.S.C. 103(a) as being obvious over *Bertrand et al* in view of *Cook et al* in view of *Oten et al* and in further view of *Yumoto et al* "Customization rule generation for electronic sales promotion system in wholesale industry" (8-9 April 1999).

Regarding claim 2:

Bertrand et al teaches,

- a) acquiring and storing (column 80, lines 41-45) a set (column 21, lines 10-27), said set an existent database of information (Abstract), wherein said information are attributes of said subject (column 62, lines 38-46)
- b) calculating (column 11, lines 25-39) and storing (Fig. 2, items 230, 234, and 270) a best behavioral (column 25, lines 44-50) model (column 26, lines 51-59) for predicting

(column 28, lines 8-22) said outcome (column 11, lines 49-67), provided an action is applied to said subject

- c) mapping (column 43, lines 12-24) of a set to said best behavioral model within a business (column 12, lines 1-16) metric (column 91, lines 17-43) space (column 5, lines 53-65; column 49, lines 34-40), wherein said mapping is subsequently stored

- d) a sample (column 91, lines 38-43) mapped (column 81, lines 42-50) to said best behavioral model, said sample for reducing computational requirements (column 19, lines 36-44) when determining an optimized strategy (column 12, lines 17-22)

- e) determining and storing said optimized strategy (column 68, lines 63-67; column 689, lines 1-8) for said sample, said optimized strategy for providing an optimal action (column 12, lines 17-22) relative to said subject for said objective of said outcome (column 11, lines 49-67)

However, *Bertrand et al* doesn't explicitly teach a) acquiring and storing a training set, said training set an existent database of information, wherein said information are attributes of said subject, wherein said training set is to provide a base of data for said method, d) selecting and storing a random sub-sample of said training set or said subject is a customer of a business entity, said business entity enabled to interact with said customer in a web based environment, and wherein said action is a promotion offered by said business entity while *Oten et al* teaches,

- a) acquiring and storing a training set, said training set an existent database of information, wherein said information are attributes of said subject, wherein said training set is to provide a base of data for said method (Abstract)

Cook et al teaches,

- d) selecting and storing a random sub-sample of said training set (column 61, lines 11-44)

Yumoto et al teaches,

- said subject is a customer of a business entity, said business entity enabled to interact with said customer in a web based environment, and wherein said action is a promotion offered by said business entity (page 51, section 3.1)

Motivation – The portions of the claimed method would have been a highly desirable feature in this art for prefetching or caching software components to reduce start up (*Cook et al*, column 20, lines 59-67) and promotion (*Yumoto et al*, page 54, section 5, paragraph 3 and page 55, paragraph 1) times, computational complexity and memory space (*Oten et al*, page 691, right column, paragraph 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Bertrand et al* as taught by *Cook et al*, *Oten et al* and *Yumoto et al* for the purpose of reducing start up and promotion times, computational complexity and memory space.

Regarding claim 10:

Bertrand et al teaches,

- a bus (column 5, lines 2-21)
- a memory unit coupled to said bus (Fig. 1, items 114, 116)
- at least one processor coupled to said bus, said at least one processor for executing a method for action selection based upon an objective of an outcome relative to a subject (Fig. 1, item 110)

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- a) acquiring and storing (column 80, lines 41-45) a set (column 21, lines 10-27), said set an existing database of information (Abstract), said information are attributes of said subject (column 62, lines 38-46), wherein said set is to provide a base of data for said method
- b) calculating (column 11, lines 25-39) and storing (Fig. 2, items 230, 234, and 270) a best behavioral (column 25, lines 44-50) model (column 26, lines 51-59) for predicting (column 28, lines 8-22) said outcome (column 11, lines 49-67), provided an action is applied to said subject
- c) mapping (column 43, lines 12-24) of a set to said best behavioral model within a business (column 12, lines 1-16) metric (column 91, lines 17-43) space (column 5, lines 53-65; column 49, lines 34-40), wherein said mapping is subsequently stored
- d) a sample (column 91, lines 38-43) mapped (column 81, lines 42-50) to said best behavioral model, said sample for reducing computational requirements (column 19, lines 36-44) when determining an optimized strategy (column 12, lines 17-22)
- e) determining and storing said optimized strategy (column 68, lines 63-67; column 689, lines 1-8) for said sample, said optimized strategy for providing an optimal action (column 12, lines 17-22) relative to said subject for said objective of said outcome (column 11, lines 49-67)

However, *Bertrand et al* doesn't explicitly teach a) acquiring and storing a training set, said training set an existing database of information, said information are attributes of said subject, wherein said training set is to provide a base of data for said method, d) selecting and storing a random sub-sample of said training set or said subject is a

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customer of a business entity, said business entity enabled to interact with said customer in a web based environment, and wherein said action is a promotion offered by said business entity while *Oten et al* teaches,

- a) acquiring and storing a training set, said training set an existing database of information, said information are attributes of said subject, wherein said training set is to provide a base of data for said method (Abstract)

Cook et al teaches,

- d) selecting and storing a random sub-sample of said training set (column 61, lines 11-44)

Yumoto et al teaches,

- said subject is a customer of a business entity, said business entity enabled to interact with said customer in a web based environment, and wherein said action is a promotion offered by said business entity (page 51, section 3.1)

Motivation – The portions of the claimed method would have been a highly desirable feature in this art for prefetching or caching software components to reduce start up (*Cook et al*, column 20, lines 59-67) and promotion (*Yumoto et al*, page 54, section 5, paragraph 3 and page 55, paragraph 1) times, computational complexity and memory space (*Oten et al*, page 691, right column, paragraph 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Bertrand et al* as taught by *Cook et al*, *Oten et al* and *Yumoto et al* for the purpose of reducing start up and promotion times, computational complexity and memory space.

Regarding claim 18:

Bertrand et al teaches,

- a) acquiring and storing (column 80, lines 41-45) a set (column 21, lines 10-27), said set an existent database of information (Abstract), wherein said information are attributes of said subject (column 62, lines 38-46), wherein said set is to provide a base of data for said method
- b) calculating (column 11, lines 25-39) and storing (Fig. 2, items 230, 234, and 270) a best behavioral (column 25, lines 44-50) model (column 26, lines 51-59) for predicting (column 28, lines 8-22) said outcome (column 11, lines 49-67), provided an action is applied to said subject
- c) mapping (column 43, lines 12-24) of a set to said best behavioral model within a business (column 12, lines 1-16) metric (column 91, lines 17-43) space (column 5, lines 53-65; column 49, lines 34-40), wherein said mapping is subsequently stored
- d) a sample (column 91, lines 38-43) mapped (column 81, lines 42-50) to said best behavioral model, said sample utilized for reducing computational requirements (column 19, lines 36-44) when determining an optimized strategy (column 12, lines 17-22)
- e) determining and storing said optimized strategy (column 68, lines 63-67; column 689, lines 1-8) for said sample, said optimized strategy for providing an optimal action (column 12, lines 17-22) relative to said subject for said objective of said outcome (column 11, lines 49-67)

However, *Bertrand et al* doesn't explicitly teach a) acquiring and storing a training set, said training set an existent database of information, wherein said information are

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attributes of said subject, wherein said training set is to provide a base of data for said method, d) selecting and storing a random sub-sample of said training set or said subject is a customer of a business entity, said business entity enabled to interact with said customer in a web based environment, and wherein said action is a promotion offered by said business entity while *Oten et al* teaches,

- a) acquiring and storing a training set, said training set an existent database of information, wherein said information are attributes of said subject, wherein said training set is to provide a base of data for said method (Abstract)

Cook et al teaches,

- d) selecting and storing a random sub-sample of said training set (column 61, lines 11-44)

Yumoto et al teaches,

- said subject is a customer of a business entity, said business entity enabled to interact with said customer in a web based environment, and wherein said action is a promotion offered by said business entity (page 51, section 3.1)

Motivation – The portions of the claimed medium would have been a highly desirable feature in this art for prefetching or caching software components to reduce start up (*Cook et al*, column 20, lines 59-67) and promotion (*Yumoto et al*, page 54, section 5, paragraph 3 and page 55, paragraph 1) times, computational complexity and memory space (*Oten et al*, page 691, right column, paragraph 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify

Bertrand et al as taught by *Cook et al*, *Oten et al* and *Yumoto et al* for the purpose of reducing start up and promotion times, computational complexity and memory space.

RESPONSE TO APPLICANTS' AMENDMENT REMARKS

Applicant argues that no new matter has been added (Amendment REMARKS page 11, paragraph 1).

Specification Objections

Applicant argues that the NETSCAPE™ specification amendment obviates the cited objection (Amendment REMARKS page 11, paragraph 2). Applicant's arguments have been fully considered and are persuasive. The objection to the specification is withdrawn.

Claim Rejections - 35 USC § 112

Applicant argues that the amendments to claims 8, 16 and 24 obviate the lack of antecedent basis rejection under 35 USC 112, 2nd paragraph (Amendment REMARKS page 11, paragraph 3). Applicant's arguments have been fully considered and are persuasive. The 35 USC 112, 2nd paragraph rejection of claims 8, 16 and 24 are withdrawn.

Claim Rejections - 35 USC § 103

Applicant argues that *Bertrand et al* USPN 6,085,184, alone or in combination with *Cook et al* USPN 5,727,950, *Oten et al* "A new structure-preserving dimensionality reduction approach and OI-net implementation" and *Yumoto et al* "Customization rule generation for electronic sales promotion system in wholesale industry" does not anticipate or render obvious the embodiments of the applicant's invention as set forth in claims 1-2, 9-10 and 17-18 (Amendment REMARKS page 16, paragraph 3). Applicants' arguments have been fully considered, but are not moot in view of new grounds of rejection.

Bertrand et al column 11, lines 25-39, Fig. 2, items 230, 234, and 270, column 25, lines 44-50, column 26, lines 51-59, column 28, lines 8-22 and column 11, lines 49-67 are cited for addressing 1) calculating and storing a best behavioral model for predicting an outcome, provided an action is applied to a subject while *Bertrand et al* column 91, lines 38-43, column 81, lines 42-50, column 19, lines 36-44 and column 12, lines 17-22 is cited in combination with *Cook et al* column 61, lines 11-44, *Oten et al*'s Abstract for addressing 2) determining and storing an optimized strategy for a random sub-sample where the optimized strategy is for providing an optimal action relative to the subject for the objective of the outcome, page 51, section 3.1 of *Yumoto et al* for addressing 3) a business entity enabled to interact with a customer in a web based environment wherein a promotion is offered by a business entity and Brief Summary text, paragraph 6 as well as Detailed Description text, paragraph 68 of *Hutchison* for addressing a) acquiring and storing a training set, said training set an existent database

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of information. Furthermore, *Cook et al* column 20, lines 59-67, *Oten et al*, page 691, right column, paragraph 1 and *Yumoto et al* page 54, section 5, paragraph 3 and page 55, paragraph 1 give reducing startup time, memory space, promotion and continuously learning how to behave in an environment which may be physical or electronic, respectively, as the purpose and motivation for modifying *Bertrand et al* as taught by *Cook et al*, *Oten et al*, *Yumoto et al* and *Hutchison*.

As set forth above with regards to *Bertrand et al*, *Cook et al*, *Oten et al*, *Yumoto et al* and *Hutchison*, the items listed explicitly and inherently teach each element of the applicants' claimed limitations. Applicants have not set forth any distinction or offered any dispute between the claims of the subject application, *Bertrand et al*'s System, method and article of manufacture for a dynamic toolbar in a tutorial system, *Cook et al*'s Agent based instruction system and method, *Oten et al*'s A new structure-preserving dimensionality reduction approach and OI-net implementation, *Yumoto et al*'s Customization rule generation for electronic sales promotion system in wholesale industry and *Hutchison*'s Adaptive autonomous agent with verbal learning.

Conclusion

The following prior art made of record is considered pertinent to applicant's disclosure:

- *Carter; Malcolm Edward et al.*; US 6731990; Predicting values of a series of data

- *Kephart; Jeffrey Owen et al.*; US 5675711; Adaptive statistical regression and classification of data strings, with application to the generic detection of computer viruses

- *Bigus; Joseph P.*; US 5442730; Adaptive job scheduling using neural network priority functions

- *Akkiraju; Rama Kalyani Tirumala et al.*; US 6490572; Optimization prediction for industrial processes

Any inquiry concerning this communication or earlier communications from the Office should be directed to Melvin Bell whose telephone number is 571-272-3680. This Examiner can normally be reached on Mon - Fri 7:30 am - 4:00 pm.

If attempts to reach this Examiner by telephone are unsuccessful, his supervisor, Anthony Knight, can be reached on 571-272-3687. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MB *10/11*
May 25, 2005


Anthony Knight
Supervisory Patent Examiner
Group 3600